

OCEAN GALES AND STORMS, JULY 1939

Vessel	Voyage		Position at time of lowest barometer		Gale began July	Time of lowest barometer, July	Gale ended July	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Direction and highest force of wind	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Europe, Nor. M. S.	Antwerp	New York	50 20 N.	1 22 W.	6	Noon, 5.	6	1007.1		WSW, 5.		SW, 8.	
Bruxelles, Belg. S. S.	Galveston	Havre	37 36 N.	66 12 W.	9	8a, 9.	10	1019.6	W	W, 8.		W, 8.	
Alfred Olsen, Nor. M. S.	Copenhagen	Philadelphia	37 24 N.	64 12 W.	10	8a, 10.	10	1019.0		SW, 8.		SW, 8.	
Rhode Island, Am. M. S.	Port Arthur	New York	28 21 N.	91 16 W.	10	8a, 10.	10	1006.4		S, 5.		S, 6.	SSW-S.
Comayagua, Am. S. S.	Galveston	Tuxpam	27 42 N.	95 06 W.	11	6p, 11.	12	1011.2	SE	SE, 6.	SSE	SSE, 7.	SE-SSE.
Colyto, Du. S. S.	Rotterdam	Wabana	49 48 N.	8 00 W.	14	Noon, 14.	16	990.9	NNW	W, 5.	NNW	NW, 9.	W-NW.
Bennekorn, Du. S. S.	Curacao	Liverpool	51 18 N.	7 48 W.	15	Noon, 16.	15	1001.4		N, 5.		N, 8.	
Braheholm, Swed. S. S.	Gdynia	New York	59 31 N.	6 17 W.	17	8a, 17.	18	991.5	N	N	N	N, 8.	N-NNE.
American Press, Am. S. S.	Pto. Colombia	Houston	11 42 N.	75 48 W.	19	7p, 19.	20	1008.5	ENE	ENE, 7.	ENE	ENE, 7.	
Bruxelles, Belg. S. S.	Galveston	Havre	49 24 N.	10 54 W.	16	11a, 20.	20	1016.3		NW, 8.		NW, 9.	
Isabela, Am. S. S.	New Orleans	San Juan	20 14 N.	71 26 W.	20	4p, 20.	20	1014.6	E	ESE, 7.	ESE	E, 7.	E-ESE.
Black Gull, Am. S. S.	Antwerp	New York	41 43 N.	56 57 W.	20	4a, 21.	21	1007.8	SE	S, 8.	NW	SE, 8.	SE-SW.
Volunteer, Am. S. S.	Port Arthur	Avonmouth	40 53 N.	56 17 W.	20	6a, 21.	21	1010.5	SW	SW, 6.	SW	SW, 8.	None.
Braheholm, Swed. S. S.	Gdynia	New York	44 32 N.	52 10 W.	25	4p, 25.	26	1002.7	NNE	SSW	N	NNE, 8.	SSW-NE.
Realf, Nor. M. S.	Copenhagen	Philadelphia	49 45 N.	10 54 W.	27	Noon, 28.	28	1010.5	SW	WSW, 8.	W	SW, 8.	SSW-WSW.
NORTH PACIFIC OCEAN													
Lacklan, Br. S. S.	Shanghai	Los Angeles	32 30 N.	125 25 E.	9	1p, 9.	9	968.8	NE	NW, 4.	SW	NE, 12.	NE-NW-SW.
Arizona, U. S. N.	San Francisco	Tacoma	38 00 N.	123 20 W.	17	3p, 17.	18	982.1	NW	NW, 8.	NNW	NNW, 8.	NW-NNW.
Silveray, Br. M. S.	Cape Engano, P. I.	Los Angeles	24 38 N.	129 54 E.	18	10a, 18.	19	996.3	NE	SSE, 5.	SE	SE, 8.	NE-SSE-SE.
Thor I, Nor. M. S.	Samoa	Mazatlan	17 30 N.	118 40 W.	19	10a, 19.	19	1000.7	NNE	S, 5.	SE	NNE, 7.	NE-S-SSE.
Knoxville City, Am. S. S.	Honolulu	Balboa	6 36 N.	97 36 W.	22	4a, 23.	23	1009.5	SW	S, 7.	S	S, 7.	SE-SW.
Evita, Nor. M. S.	Saigon	Los Angeles	25 01 N.	128 28 E.	23	2a, 24.	24	1005.1	SE	SSE, 9.	SSE	SSE, 9.	SSE-SW.
Susan V. Luckenbach, Am. S. S.	Los Angeles	Balboa	18 03 N.	103 21 W.	29	Noon, 29.	29	1006.8	WSW	E, 9.	SE	E, 9.	NE-SE.

¹ Position approximate.

NORTH PACIFIC OCEAN, JULY 1939

By WILLIS E. HURD

Atmospheric pressure.—The average pressure chart of the North Pacific Ocean for July 1939 shows two distinct depressions—one of them, the Aleutian Low, central over the eastern part of the Bering Sea; the other, off the east coast of China. In both instances the central pressures were below the normal of the month by some 2 to 3 millibars (0.06 to 0.09 inch). At St. Paul Island the July average, 1,007.8 millibars (29.76 inches) was 5.1 millibars (0.15 inch) below the previous June average, thus indicating an unusual strengthening, instead of the usual weakening, of the Aleutian Low in this summer month.

Practically throughout July the North Pacific HIGH extended from the California coast westward far into east longitudes. At Midway Island the average pressure, 1,022.8 millibars (30.20 inches), was 3.2 millibars (0.09 inch) above the normal of the month.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, July 1939, at selected stations

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Millibars	Millibars	Millibars		Millibars	
Point Barrow	1,012.1	-0.9	1,020	8	1,007	14, 30
Dutch Harbor	1,010.7	-3.3	1,024	9	994	1
St. Paul	1,007.8	-2.7	1,030	9	992	20, 21
Kodiak	1,011.4	-2.6	1,024	8	988	31
Juneau	1,015.8	-1.9	1,027	20	1,002	3
Tatoosh Island	1,018.8	+1.1	1,029	20	1,004	2
San Francisco	1,014.8	+0.5	1,021	11	1,008	24
Mazatlan	1,011.9	+0.9	1,014	4, 15	1,010	23, 31
Honolulu	1,017.4	+0.7	1,021	16	1,014	29
Midway Island	1,022.8	+3.2	1,026	9, 15-17	1,018	14
Guam	1,009.2	-1.1	1,012	15, 22	1,007	20, 25, 30
Manila	1,006.4	-0.6	1,009	1, 24-26	1,002	31
Hong Kong	1,001.0	-3.1	1,009	1	995	29
Naha	1,004.0	-2.3	1,013	1	995	31
Titijima	1,010.1	-0.6	1,016	3, 12-17	1,002	1, 27, 30
Petropavlovsk	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Data missing.

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

Extratropical cyclones and gales.—In northern and middle latitudes the North Pacific weather in July 1939 appears to have been record-breaking in its lack of winds of gale force due to extratropical conditions. There were northerly gales of force 8 to 9 off the central California coast on the 17th, along the eastern edge of a strong oceanic anticyclone. In higher latitudes a northwesterly wind of force 7 was reported near the Aleutians southwest of Dutch Harbor on the 30th during the prevalence of the deepest cyclone of the month in northern waters. Thus, although extratropical lows were fairly numerous over the Aleutians and the Gulf of Alaska, and farther westward to Japan, they were unusually mild in character.

Tropical cyclones and gales.—Several cyclonic disturbances occurred in the Far East during July, but only one of them, so far as our reports indicate, was a typhoon having winds of hurricane force. This storm appears on our charts as a low east of the Philippines on the 7th. It moved northward and its center lay west of Kiushiu Island on the 9th. On that date the British steamer *Lacklan*, east-bound from Shanghai, passed through the storm center, with light variable winds, lowest barometer 968.8 millibars (28.61 inches), in 32°30' N., 125°25' E., at 1 p. m. Before the passage of the center the highest wind on ship was of force 12 from the northeast, and after the passage of the center the highest wind was of force 10 from the south. According to a press report from Tokio, considerable damage was done by the storm in the Oshima Islands, with one person reported killed and 19 missing. Some 900 dwellings were reported partly or wholly destroyed.

Another tropical cyclone, of as yet unknown intensity, occurred on the 18th between Taiwan and the Nansei Islands. The only gale report at hand concerning it was received from the British motorship *Silveray*. This ship encountered violent squalls of force 8-9. Her lowest barometer was 996.3 millibars (29.42 inches) in 24°38' N., 129°54' E.

A third disturbance occurred between Taiwan and Japan during the 22d to 24th. The intensity of the disturbance is gathered only from the report of the Nor-